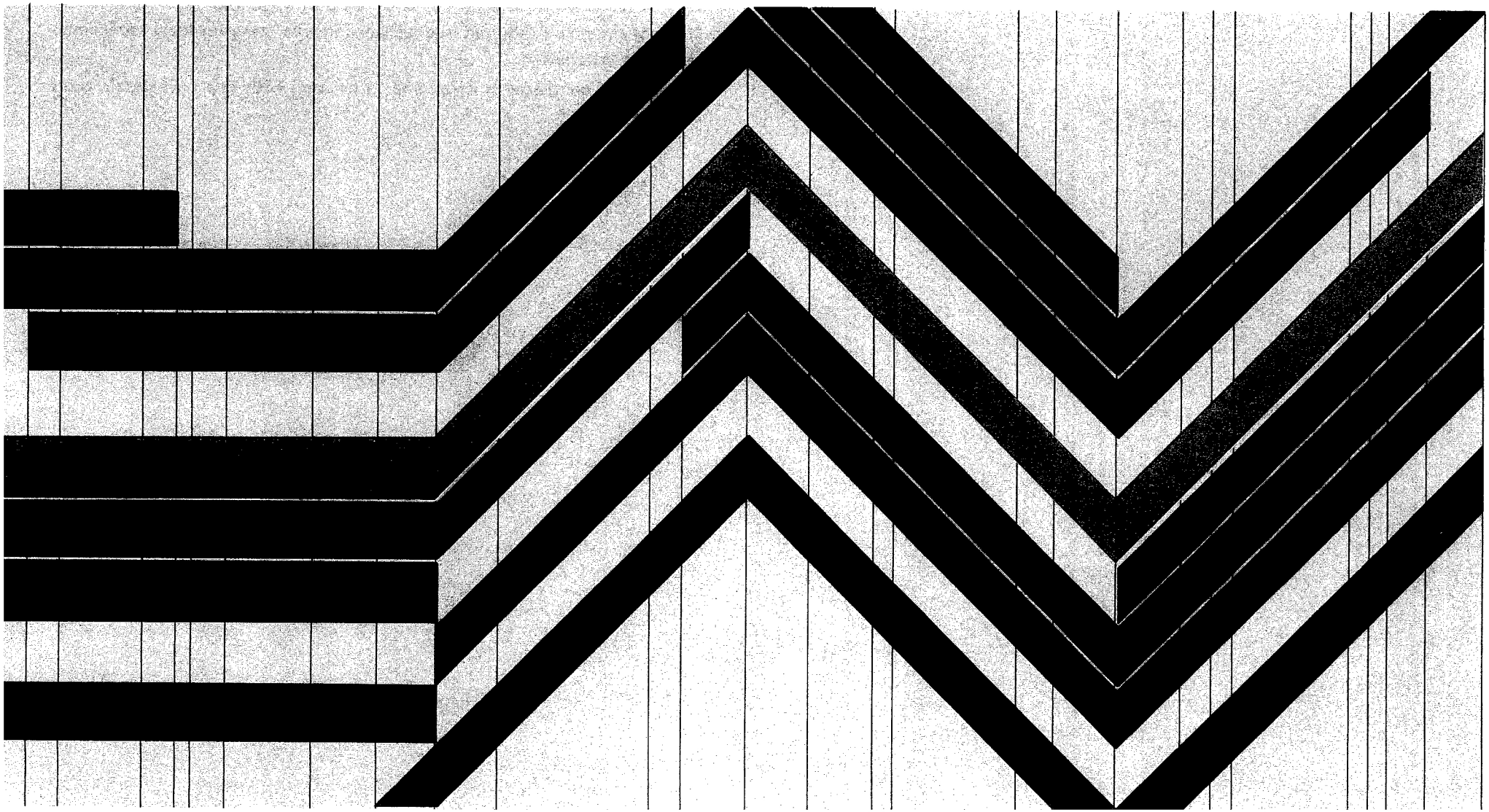
SHARP

owner's manual

SHARP Radio Cassette TV

Model 5P-27G



This set is connected with 220V A.C. when the plug is plugged in the mains outlet.
To disconnect the set from mains completely, please pull out the mains plug.

1 Viewing Hints

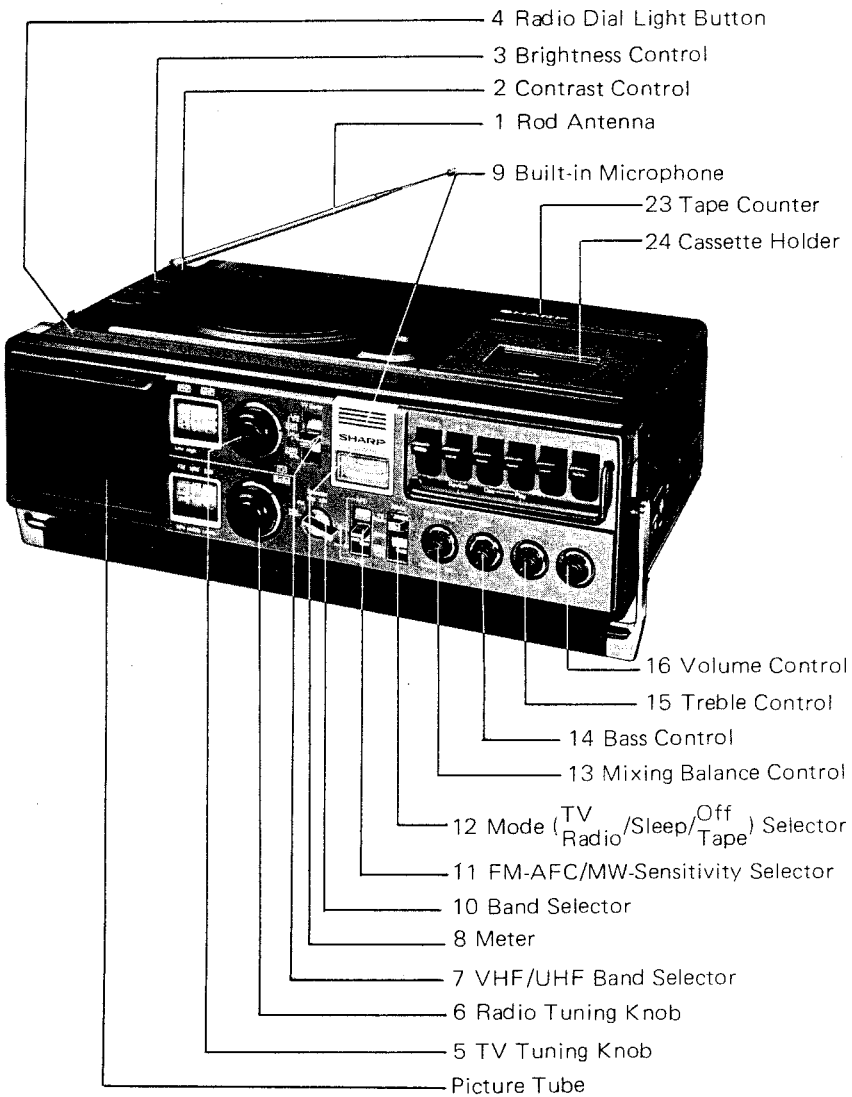
1. Your new SHARP TV is highly sensitive to heat and should not be exposed to direct sun or placed in contact with a hot surface.
2. For best reception on the VHF Channels (2-12) and UHF Channels (21-69), adjust the length and direction of the telescopic rod antenna; the higher the UHF channel number, the shorter the length of the antenna. The of VHF antenna is the same as in case of the UHF antenna.
3. If a roof antenna is required in your viewing area, see your local serviceman regarding installation.
4. A marketed condenser microphone to be used with this unit should built in try cells.

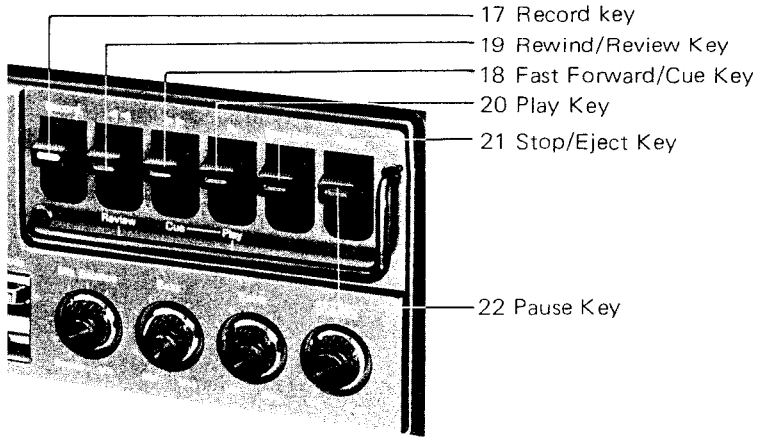
2 External Interference

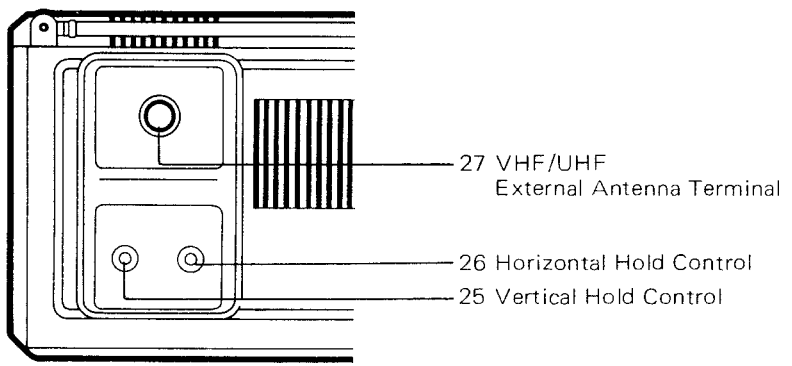
External radio interference and incorrect antenna position may affect reception.

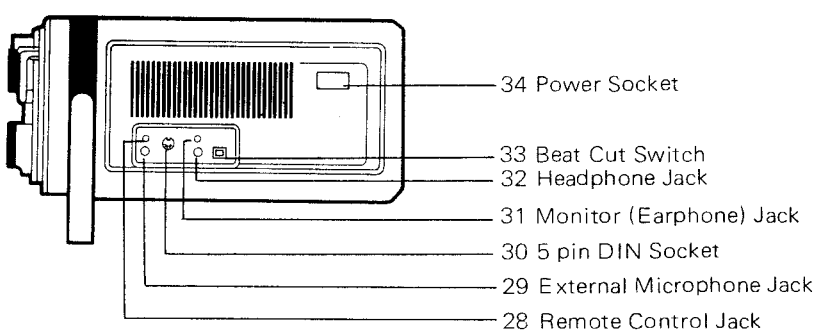
Stripes or spots in the picture are generally due to automobiles, motors or neon signs. Care should be taken by your local serviceman when positioning the external antenna in order to avoid this type of interference. Double images or "ghosts pictures" are caused by reflections of incoming signals from surrounding obstacles. The external antenna should be placed by your serviceman so as to avoid this type of interference.

3 Controls


4 Radio Dial Light Button
3 Brightness Control
2 Contrast Control
1 Rod Antenna
9 Built-in Microphone
23 Tape Counter
24 Cassette Holder
16 Volume Control
15 Treble Control
14 Bass Control
13 Mixing Balance Control
12 Mode (TV/Radio/Sleep/Off/Tape) Selector
11 FM-AFC/MW-Sensitivity Selector
10 Band Selector
8 Meter
7 VHF/UHF Band Selector
6 Radio Tuning Knob
5 TV Tuning Knob
Picture Tube


17 Record key
19 Rewind/Review Key
18 Fast Forward/Cue Key
20 Play Key
21 Stop/Eject Key
22 Pause Key

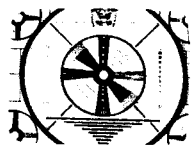

27 VHF/UHF
External Antenna Terminal
26 Horizontal Hold Control
25 Vertical Hold Control


34 Power Socket
33 Beat Cut Switch
32 Headphone Jack
31 Monitor (Earphone) Jack
30 5 pin DIN Socket
29 External Microphone Jack
28 Remote Control Jack

[1] **Rod Antenna**
This is an antenna for receiving FM and TV broadcasting.

[2] **Contrast Control (Contrast)**
Used to adjust the contrast for black and white picture. Turn clockwise to increase the picture contrast. Turn counterclockwise to reduce it. Incorrectly adjusted, picture contrast may cause eyestrain.

TOO MUCH CONTRAST



TOO LITTLE CONTRAST

[3] **Brightness Control (Brightness)**
Used to adjust brightness of the picture.
Turn clockwise to increase the brightness of the picture.
Turn counterclockwise to reduce the brightness.

[4] **Radio Dial Light Button (Radio Dial Light)**
Radio dial will be lighted while pushing the button on the radio operation.

[5] **TV Tuning Knob (TV)**
For TV channel selection, turn this knob slowly clockwise or counterclockwise, trying to align the desired channel number to that (a line mark) indicated on the dial window. The most vivid picture will then develop on the screen.

[6] **Radio Tuning Knob (Radio)**
Turn this knob slowly clockwise or counterclockwise to tune to the desired radio station while observing the indication (a line mark) on the dial window.

[7] **VHF (Low-High)/UHF Band Selector (TV Band)**
When viewing the VHF (low-high) and UHF channels, sift the band selector to the following range respectively.
VHF-"Low"
For viewing the VHF channels "2" to "4"
VHF-"High"
For viewing the VHF channels "5" to "12"
UHF
For viewing all the UHF channels "21" to "69"

[8] **Meter (LEVEL/TUNING/BATTERY)**
This meter provides the following three functions:
- To indicate a recording level at the time of recording operation.
- To indicate a tuning level at the time of radio operation.
- To reveal whether the battery capacity is exhausted.

As to using method of the meter, refer to the Sections "AC/DC/Dry Battery Operation" and "Radio Operation".

[9] **Built-in Microphone**

[10] **Band Selector (Selector)**
TV: Telecasting reception.
FM: FM broadcasting reception
LW: LW broadcasting reception
MW: MW broadcasting reception

[11] **FM-AFC/LW and MW-Sensitivity Selector**
(AFC-on-off, AM-Local-DX)
- If this selector switch is set at "ON" position when enjoying FM programs, the built-in FM AFC circuit begins to function allowing an easier tuning of the desired station to keep the reception always stable. However, if FM wave to be received is not only too weak but also very close to other stronger wave, they will be mixed together to give you an unpleasant reception. In such a case set the selector to "OFF" position.
- For LW and MW reception, it is generally preferred to set the selector at "DX" position, but if the speaker sound becomes distorted with far stronger signals (for example, coming from a station nearest you), set the selector to "Local" position.

[12] **Mode Selector (Mode TV/Radio -Sleep- Off/Tape)**

This is a change-over switch to allow selection of the modes "TV", "Radio", "Sleep" and "Tape".

[13] **Mixing Balance Control (Mix Balance)**

Used to determine the mixing ratio of audio sources.
(As to details see Section "Mixing Operation.")

[14] **Bass Control (Bass)**

Turning this knob clockwise will enhance bass tone and vice versa.

[15] **Treble Control (Treble)**

Turning this knob clockwise will enhance treble tone and vice versa.

[16] **Volume Control (Volume)**

Used to adjust the reception volume as you desire.

[17] **Record Key (Record)**

For recording, push this key together with the play key (▶ Play).

[18] **Fast Forward/Cue Key (▶▶ Cue)**

By depression of this key, tape starts to travel at a fast speed. Even at playback mode with the play key depressed, tape can be fast forwarded by pushing this fast forward key: upon releasing this key, playback can resume without delay.

[19] **Rewing/Review Key (◀◀ Review)**

By depression of this key, tape starts to be rewinded at a fast speed. Even at playback mode with the play key depressed, tape can be rewinded by pushing this rewind key: upon releasing this key, playback can resume without delay.

[20] **Play Key (▶ Play)**

Used to play tape.

[21] **Stop/Eject Key (Stop/Eject)**

When this key is once pushed, the functions preset by other keys (except for the pause key) are all cancelled and the tape stops running. The cassette holder will pop out when this key is depressed again.

[22] **Pause Key (Pause)**

Push this key when you want to stop tape running for a while during record and/or playback mode. To restart the tape, depress this key once more. (To stop tape for a longer time, be sure to push the Stop/Eject key.)

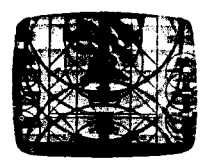
[23] **Tape Counter**

The tape counter indicates how long a tape has travelled and it is reset to "000" when the button at tright of it is pushed.

[24] **Cassette Holder**

[25] **Vertical Hold Control (V-HOLD)**

Used to control the "framing" of the picture. Adjust it if the picture is not correctly framed or if it is not stable and "rolls".



(V-HOLD)

[26] **Horizontal Hold Control (H-HOLD)**

Used to control the synchronization of the picture. Adjust it if the picture has "broken-down horizontally" and is not synchronized.

(H-HOLD)

[27] VHF/UHF Antenna Terminal

When using the external antenna, insert its plug into this socket.
When using the built-in rod antenna, draw out the external antenna plug. Then, the built-in antenna is automatically put into operation in place of the external antenna.

[28] Remote Control Jack (REMOTE)

When operating the tape recorder by means of the remote control switch or using a remote-controlled microphone, insert their plug into this jack.

[29] External Microphone Jack (MIC)

When using an external microphone, connect it with this jack.

[30] 5 Pin DIN Socket (⌀⌀)

When recording or playback from other audio sources like radio, TV set, etc. use this socket.

[31] Monitor (Earphone) Jack (MONIT.)

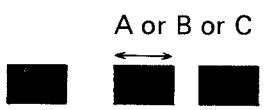
When monitoring through earphone, connect it with this jack.

[32] Headphone Jack (PHONE)

For a private listening through headphone, connect it with this jack.

[33] Beat Cut Switch (BEAT)

If there develops beat during recording of MW and LW broadcasts, change over the switch as follows:

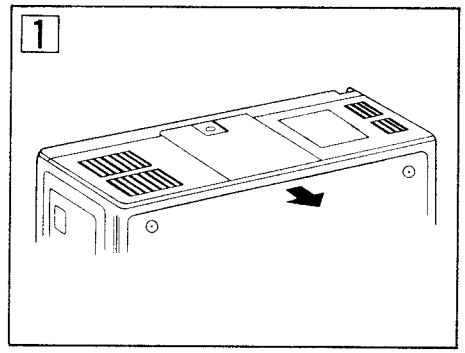


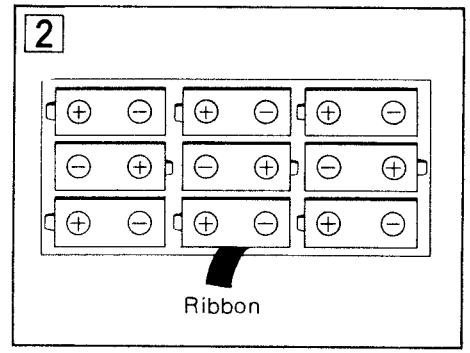
[34] Power Socket

For both AC (220V, 50Hz) and DC (12V) operations, insert a power cord (furnished with the set) and an exclusive battery cord (CC-614 not furnished with the set) respectively into this socket.

4 AC/DC/Dry Battery Operation

Dry Battery Operation



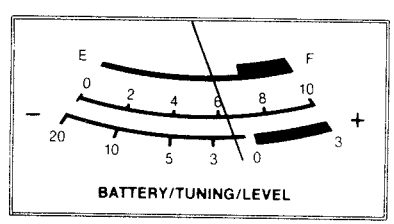


1. Raise the receiver a little and open battery lid as illustrated in Fig. 1, pushing it in the direction of arrow mark. (Fig. 1)
2. Install nine "D" cell batteries correctly, paying attention to their polarity (Fig. 2)
3. Close the battery lid as before.

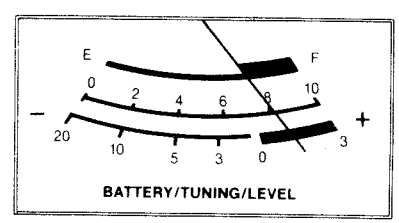
Note: If AC cord or battery cord are coupled to the Power Socket, the set can't operate on these dry batteries.

◆ Battery Checking

1. Set the Mode selector (Mode) to "Off/Tape" position and push the play key (▶ Play), then the meter will show extent of battery exhaustion, working as a battery check meter. For normal operation of the set, the exhausted batteries should be replaced with new ones.



Batteries are exhaust



Batteries are still alive

2. The battery check meter can reveal battery exhaustion extent for either the tape recorder or radio operation. It is noted that when the TV operation is based on the dry batteries, it is needed to replace them with new ones at the time when the picture becomes fainter or narrower.
3. The battery check meter does not give any information while the tape recorder is at record mode. It is therefore preferred for you to check battery condition in advance, when trying to record the most desired programs, in particular for a long time recording: the best precaution is to replace the batteries with new ones beforehand.

◆ AC Operation

- Plug an appropriate end of the AC power cord into the AC Input Jack located on the right side of the receiver and the other end to a wall outlet (220V, 50Hz).

◆ DC 12V Operation

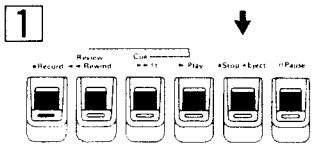
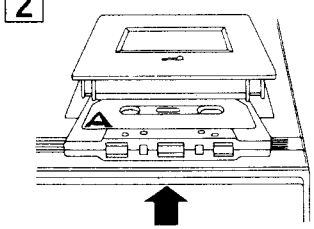
1. Plug an appropriate end of the battery cord into the DC Input Jack located on the right side of the receiver and connect the other end to the DC12V batteries.
2. When operating the receiver on a DC line, disconnect the AC power plug from the AC Input Jack of the receiver.

◆ To turn off power

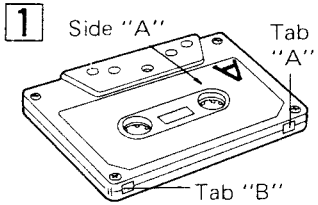
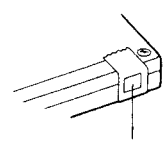
- Set the Mode selector to "Off / Tape" position and depress the Stop/Eject key.

5 Use of Cassette Tape

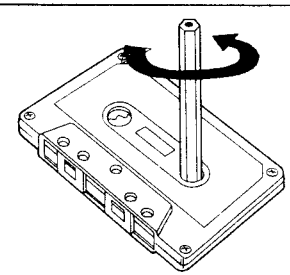
◆ Cassette Tape Installation

1 	Push the Stop/Eject key to open cassette holder.
2 	Cassette tape has two faces, namely side "A" and side "B". To play back content recorded in the side "A", install the cassette with the side "A" up-position as shown in the figure, and to play recorded content of the side "B" – with the side "B" up-position.

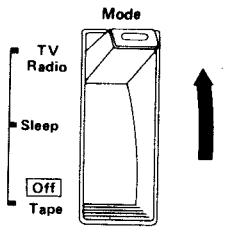
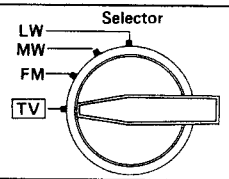
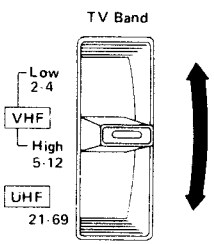
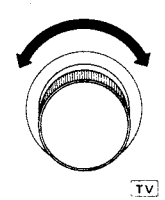
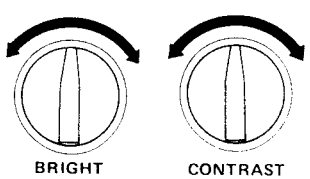
◆ Erase Protection of Recorded Tapes

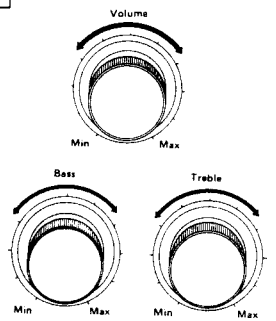
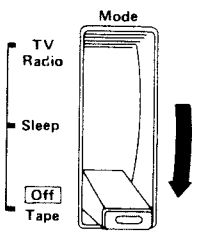
1 	Each cassette is equipped with erase-protection tabs as shown in order to prevent accidental erasing or recording of pre-recorded cassette which you want to keep permanently.
2 	To re-record a cassette with its erase-protection tab(s), cover the opening hole with a piece of plastic tape and record as usual.

◆ Slackened Tape

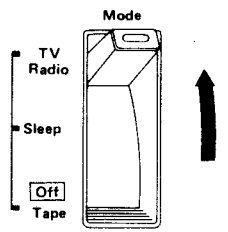
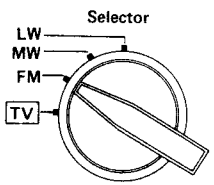
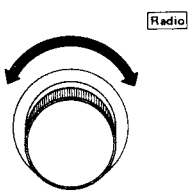
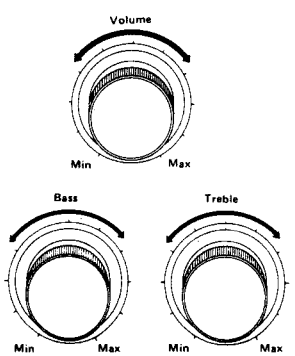
	Tape may be slackened when given vibration as a result of transportation or during handling it. Stretched tape can easily become entangled with the drive mechanism causing major damage. So tighten it as illustrated using a pencil or other means.

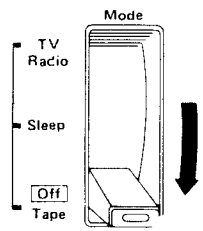
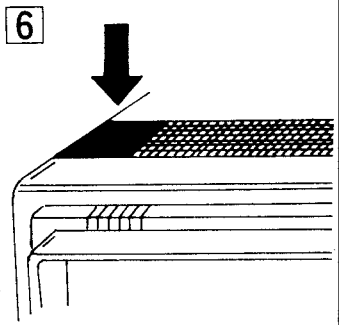
6 TV Operation

1 	Set the Mode selector to "TV Radio" position
2 	Set the band selector to "TV" position
3 	Tune in the desired channel by the VHF (Low, High) or UHF selector (TV Band). • When selecting low VHF channels (2 to 4): Low 2 ~ 4 • When selecting high VHF channels (5 to 12): High 5 ~ 12 • When selecting UHF channels (21 to 69): UHF 21 ~ 69
4 	Turn the tuning control (TV) to tune in the desired channel. It sometimes occurs that you can't obtain vivid picture even with a pinpoint indication of the channel number on the window. In this case further rotate the control a little clockwise or counterclockwise to achieve the vivid picture.
5 	Adjust picture brightness and contrast respectively by the brightness control and contrast control.

6 	Adjust sound volume and quality by the volume control, bass control and treble control.
7 	To turn off power, set the Mode selector (Mode) to "Off Tape" position.

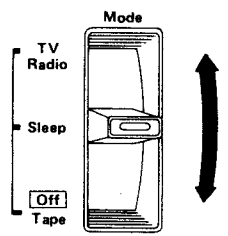
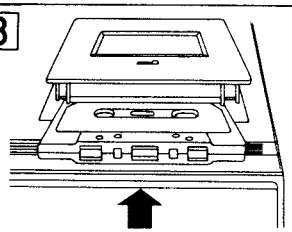
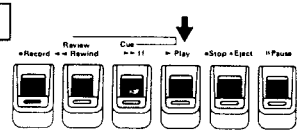
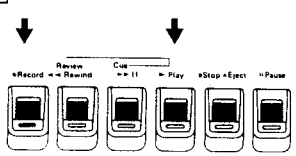
7 Radio Operation

1 	Set the Mode selector (Mode) to "TV Radio" position.
2 	Set the band selector (Selector) "FM", "LW" or "MW" position. FM: for FM reception LW: for LW reception MW: for MW reception
3 	Turn the tuning control (Radio) and stop it at a position where the meter needle swings to the right-most position.
4 	Adjust sound volume and quality by the volume control, bass control and treble control.

5 	To turn power off, set the Mode selector (Mode) to "Off Tape" position.
6 	When tuning in a darker place, push the radio dial light button (Radio Dial Light) to illuminate the radio dial. The lamp will be kept lighting during while the button is depressed.

8 Full Auto Stop Mechanism and "Sleep" Mode

This set is furnished with convenient full auto stop mechanism which permits that in any mode of "Record," "Play Back," "Fast Forward" and "Rewind" the key is reset automatically to turn off power when the tape is entirely wound up. With the assistance by this mechanism you can limit an enjoyable time of TV or radio program only to the duration where the tape is in motion. For example, you are able to be asleep while enjoying TV or radio program, or recording a tape for a limited time by taking the following way.

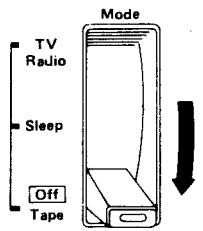
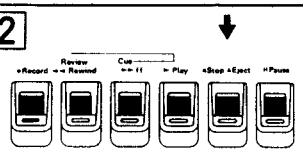
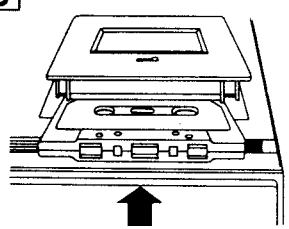
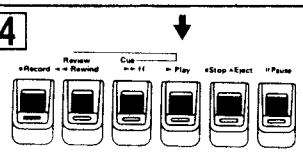
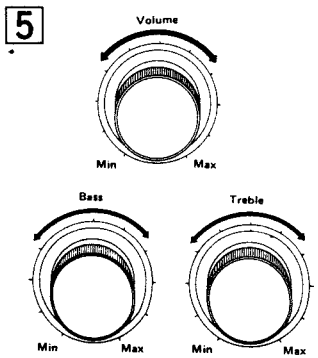
1	Turn on TV or radio, referring to Section "TV Operation" or "Radio Operation"
2 	Set the Mode Selector (Mode) to "Sleep" position.
3 	Install a cassette tape having length corresponding to desired time.
4 	Push the play key (▶ Play).
5	When the tape has reached its end, the key is reset automatically and the radio or TV is switched off.
6 	If the record key (Record) and play key (▶ Play) are pushed at the same time, recording on a tape starts and eventually stops automatically with the aid of the full auto stop mechanism. See Section "Recording".

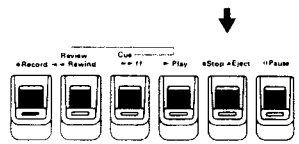
- Working time of cassette tape as timer is as follows.

Cassette tape	Working time as timer
C-30	about 15 min.
C-60	about 30 min.
C-90	about 45 min.

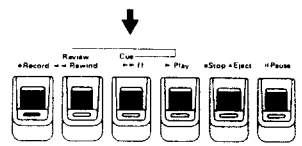
Note: If the stop key is pushed at tape end, this auto stop function may still be alive to act upon even a subsequent operation. This is not a faulty operation, however.

9 Tape Play Back

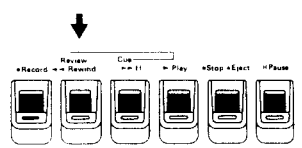
1 	Set the Mode selector (Mode) to „Off" Tape position.
2 	Push the Stop/Eject key to open the cassette holder.
3 	Set cassette tape.
4 	Push the play key (▶ Play).
5 	Adjust sound volume and quality by the volume control, bass control and treble control.

6 	Upon completion of tape playing, push the Stop/Eject key to stop tape running. (It is, however, noted that when the tape has reached its end, the key will be reset to automatically stop even without pushing the Stop/Eject key).

◆ Fast Forward

	For advancing tape at a fast speed up to a desired point, stop the tape once and then depress the Fast Forward/Cue (▶▶ Cue) key.

◆ Rewind

	To rewind the tape to a desired point, stop it once and then push the Rewind/Review (◀◀ Review) key.

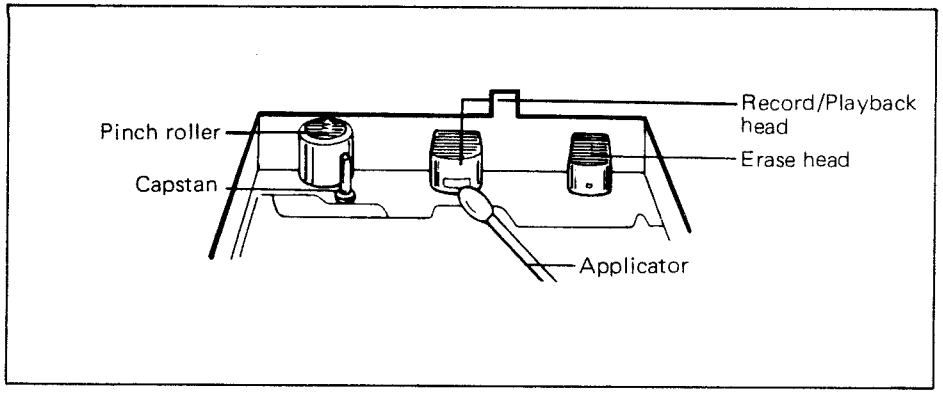
◆ Cue Mechanism and Review Mechanism

If the Fast Forward/Cue (▶▶ Cue) or Rewind/Review key (◀◀ Review) is pushed during playback mode, tape will move forward or backward at a fast speed as long as either of the said keys is in depression. You can restore playback mode immediately when the key is released. The result is that with this function you can more speedily locate your desired point of a tape, by observing the tape counter simultaneously.

◆ **Use the cue key or review key to:**

- listen to recorded content right after completion of recording;
- play a particular part back repeatedly;
- skip over one program to another to be played back.

◆ Cleaning of Magnetic Head



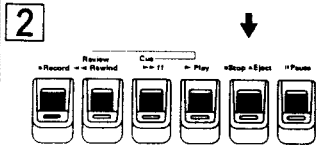
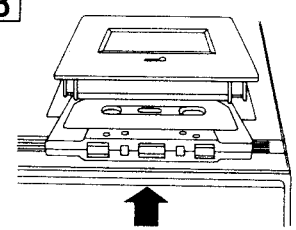
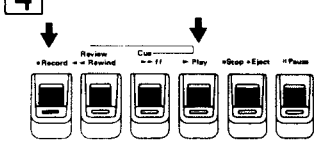
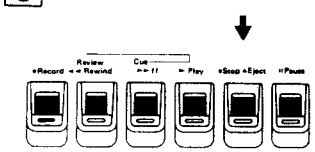
Magnetic head is the most essential part of tape recorder. If dust is sticking to the magnetic head, capstan and pinch roller which are most frequently in contact with a tape, the resultant sound will be distorted or develop only intermittently.

Therefore clean the head in the following procedure: push the Stop/Eject key, remove cassette tape and push the play key (▶ Play) to move ahead the head and pinch roller. Then wipe them with the furnished applicator. (If the head or pinch roller is contaminated excessively, moisten the applicator with head cleaning liquid available in market.)

Note: Since this receiver is designed to be completely lubrication-free, lubrication may cause trouble: never try to lubricate it, therefore.

10 Recording

Recording from TV or Radio Broadcasting

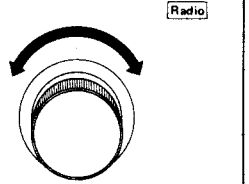
1	Make TV or radio be ready to operate.
2 	Push the Stop/Eject key to open cassette holder.
3 	Set cassette tape.
4 	Push the record key (Record) and play key (▶ Play) at a time.
5 	Upon completion of recording push the Stop/Eject Key to stop tape running. (It is, however, noted that when the tape has reached its end, the key is reset to automatically stop the tape even without depression of the Stop/Eject key.)

■ Record Monitoring

When the tape recorder is in record mode, the built-in variable monitor circuit is functioning to permit you to monitor recorded contents through the speaker. It is therefore allowed for you, even during recording, to enjoy TV or radio program if desired.

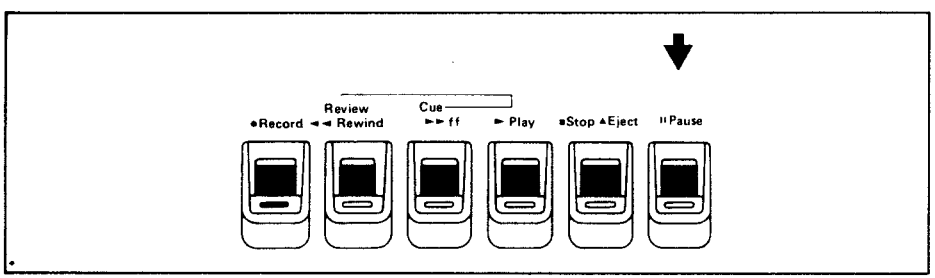
If an earphone (furnished) or headphone (not furnised) is connected respectively to earphone jack or headphone jack, record monitoring is also possible through earphone or headphone. At this time no sound comes out of the speaker, however.

■ Recording through Wireless Microphone

1 	Make the radio be ready to operate and turn the tuning control (Radio) to tune with transmitting frequency of wireless mike.
2	Carry out recording in the same procedure as that of "Recording" from TV or Radio".

■ Temporary Tape Stop

During recording or playback, tape can be stopped temporarily for various purposes such as editing records or writing down contents recorded on the tape.

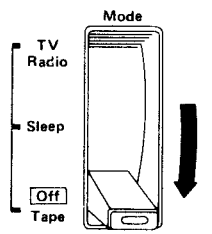
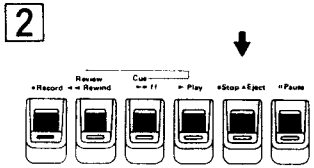
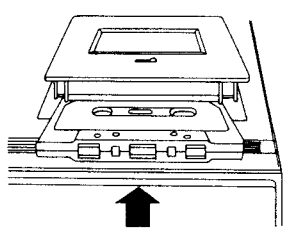


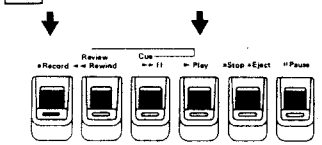
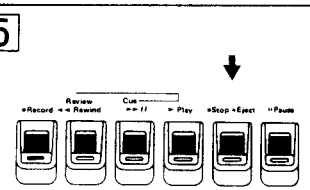
1. **Temporary stop by the pause key**
   If the pause key is pushed once during recording or play back, tape stops temporarily. When the key is pushed again, temporary stop is released and tape restarts.
2. **Temporary stop through the remote control**
   Insert remote control plug of either the remote control switch or the remote-controlled external microphone into the remote control jack (Remote). When the remote control switch is turned off, tape is stopped temporarily.

Note: ● Even when tape is in a temporary stop, power is kept still alive. Therefore, after the operation, never fail to push the Stop/Eject Key and set the TV/Radio/Sleep/Tape selector (Mode) to "Off / Tape" position to turn off power.

● Since ALC (Automatic Record Level Control) circuit is incorporated in this set, there is no bother of manually adjusting the record level during operation.

Recording through Built-in Mike or DIN Mike

1 	Set the Mode Selector (Mode) to " Off / Tape " position.
2 	Push the Stop/Eject key to open cassette holder.
3 	Set cassette tape.

4 	Push the record key and play key (▶ Play) simultaneously.
5 	Upon completion of recording, push the Stop/Eject key to stop tape running. (It is, however, noted that when the tape has reached its end, the key is reset to automatically stop the tape even without depression of the Stop/Eject key.)

■ Erasing Recorded Tape

In this tape recorder, the pre-recorded content is automatically erased when recording anew. However, when you desire to erase the recorded content without recording, take the following procedures.

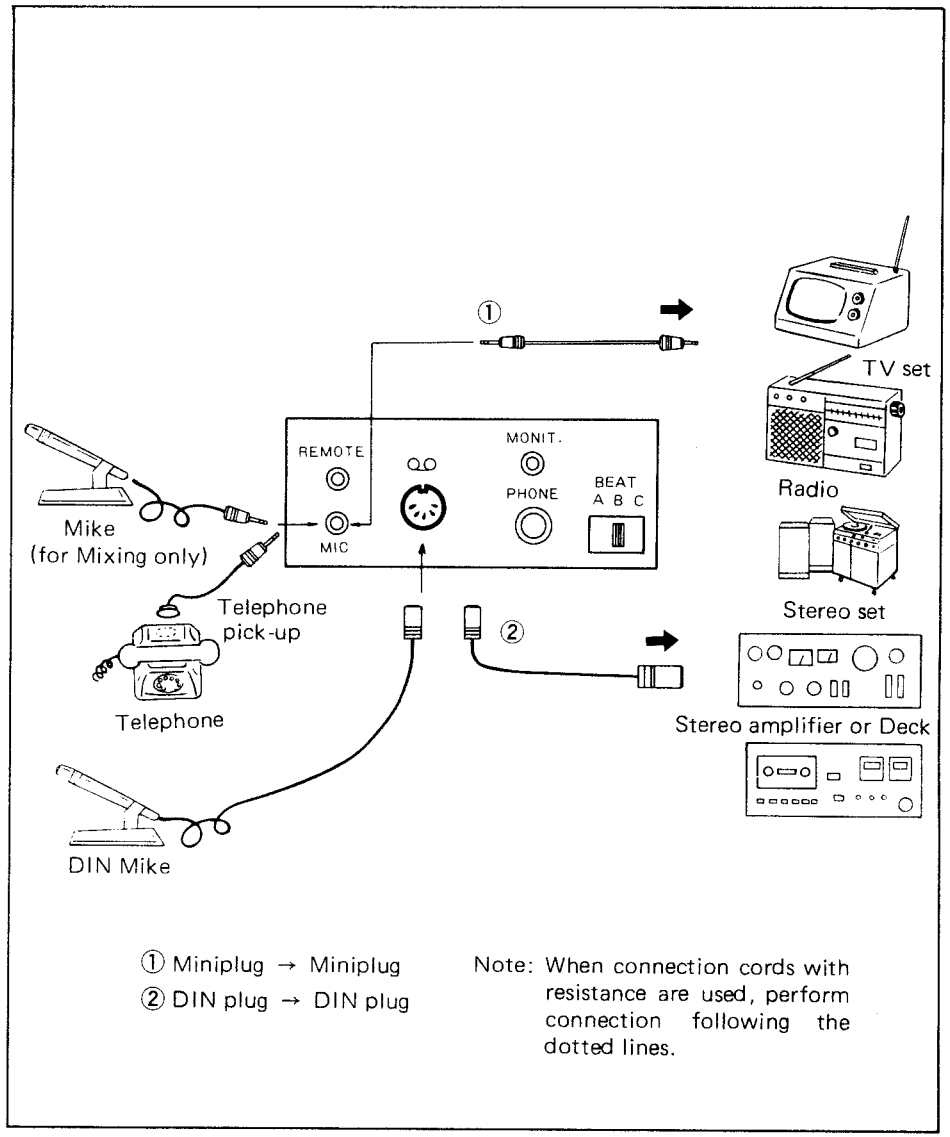
1. Install cassette tape and set the TV/Radio/Sleep/Tape Selector (Mode) to "Off Tape" position.
2. Insert erasing plug into the microphone jack (MIC).
3. Turn the mixing balance control fully to "Mic" side.
4. Push the record key and play key simultaneously.
5. Upon completion of erasing, push the Stop/Eject key.

■ Recording through DIN Microphone

- Connect DIN microphone with the DIN socket (ᴑ—ᴑ). (The built-in microphone is, in turn, powered off automatically and only the DIN microphone can operate.)
- During recording through the built-in microphone or DIN microphone, monitoring of the recorded content is impossible, however.

11 Connection to Other Audio Systems

■ Perform connection between this receiver and other external apparatus as follows. (Please purchase connection cord separately.)



① Miniplug → Miniplug
② DIN plug → DIN plug

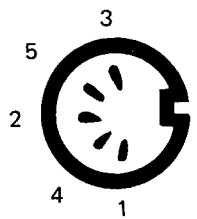
Note: When connection cords with resistance are used, perform connection following the dotted lines.

- The connections to the 5 pin DIN socket are shown below. If your audio system does not have a DIN socket your local dealer may be able to supply you with a suitable alternative lead.

1 4 . . . . . Input

2 . . . . . Common Earth

3 5 . . . . . Output



12 Mixing Operation

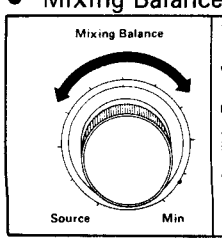
1. MIXED REPRODUCING

MIXING		SELECTOR SWITCH	TAPE RECORDER MODE	MONITORING BY:
SOURCES	MIXING THROUGH:			
TV or RADIO	EXT MIKE	TV RADIO	PLAYBACK	SPEAKER HEADPHONE EARPHONE
TAPE	EXT MIKE	OFF TAPE	PLAYBACK	
WIRELESS MIKE	EXT MIKE	TV RADIO	PLAYBACK	

2. MIXED RECORDING

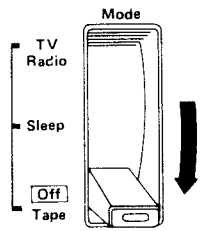
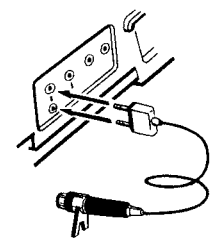
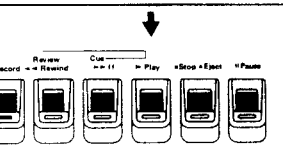
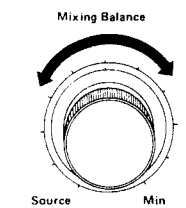
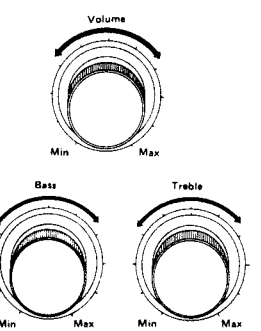
MIXING		SELECTOR SWITCH	TAPE RECORDER MODE	MONITORING BY:
SOURCES	MIXING THROUGH:			
TV or RADIO	EXT MIKE	TV RADIO	RECORD	SPEAKER/HEAD-PHONE/EARPHONE
RECORD/ PLAYER SOCKET (DIN)	EXT MIKE	OFF TAPE	RECORD	
BUILT-IN MIKE	EXT MIKE	OFF TAPE	RECORD	

- It is noted that if the microphone is brought too near the speaker, the resultant sound will cause howling: in this case, make the microphone be away from the speaker or decrease the volume.
- Mixing Balance Control:



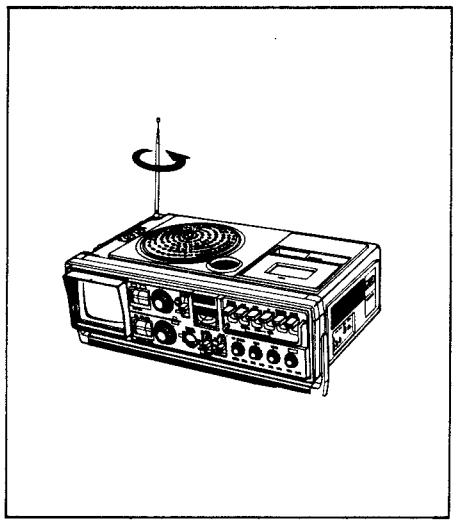
This knob is useful for adjusting the balance of source's volume and microphone's sound, thereby allowing pleasure of mixing. Turn the knob to the left or right to your listening taste. (With the connector plugged in the DIN socket, the output of source is kept constant, and this knob permits adjustment of microphone output only.)

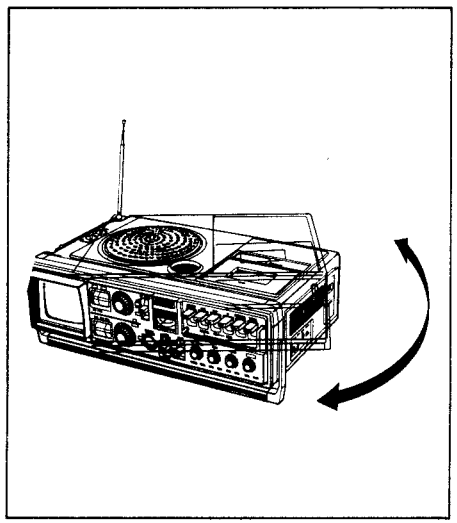
■ Using External Microphone as Loudspeaker

1 	Set the Mode selector (Mode) at "Off Tape" position.
2 	Plug the external microphone into the micro-phone jack (MIC).
3 	Push the play key (▶ Play).
4 	Turn the mixing balance control (Mix. Balance) fully clockwise.
5 	Adjust the volume, bass and treble controls.

13 Antenna Adjustment

■ Antenna Selection for Radio Reception





1 For FM reception, use the rod antenna. After tuning in the desired station, rotate the rod antenna to a direction which allows radio reception with maximum volume but with less noises.

2. The built-in ferrite antenna is enough to receive LW and MW broadcasts favorably but it has a property of so-called directivity: Move the receiver itself to a direction where the sensitivity in reception will be the best with noise lessened to the minimum.

14 Removable Sunshield

How to remove:

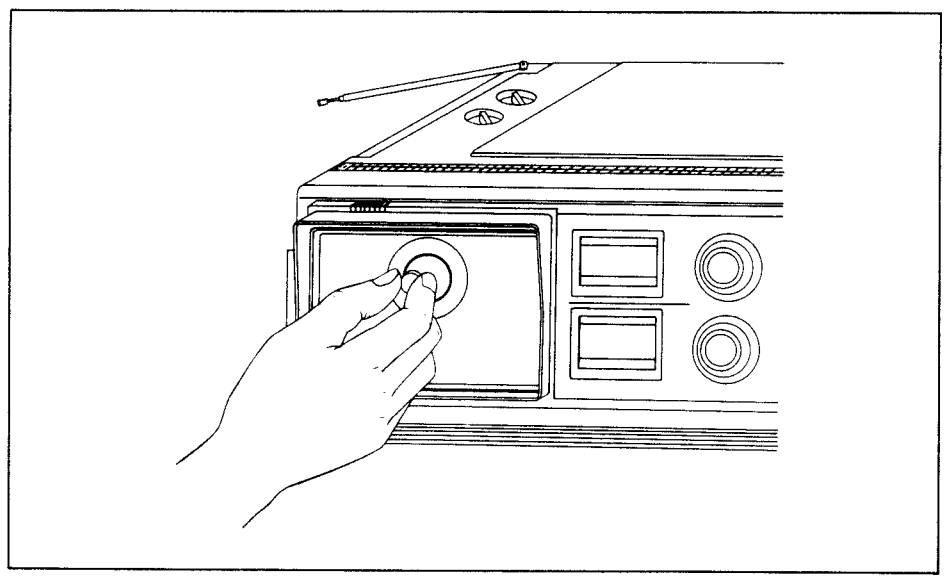
To exchange or to remove the sunshield panel for cleaning the picture tube surface, please follow the steps below:

1) Press the rubber suction cup (enclosed) on the top portion of the sunshield panel.
2) Then gently pull if out to loosen. The sunshield panel can be taken off.

How to install:

1) To install the sunshield panel, simply place it in position.
2) Then press it in gently until the panel is flush with edge of cabinet.

CAUTION – Do not attempt to clean the sunshield panel with a dry cloth as the dust will act as an abrasive and scratch the surface. Avoid the use of strong cleaning solutions, ammonia, or abrasive cleaners.



15 Specifications

TV Section

Receiving Channel:	C.C.I.R. TV standard 2-12 & 21-69 ch.
Receiving System:	5.5MHz Intercarrier system
Antenna Input:	75 ohm unbalanced
Picture Tube:	104 mm diagonal measurement, 55-degree deflection angle

Radio Section

Receiving System:	Superheterodyne system with AFC and AGC
Frequency Range:	FM 87.6 – 108 MHz LW 150 – 285 kHz MW 520 – 1620 kHz

Tape Recorder Section

Track System:	2-track monaural
Tape:	Standard compact cassette tape (C-30, C-60, C-90)
Tape Speed:	4.75 cm/sec.
Recording System:	AC bias system
Erasing System:	AC erase system
Fast Forward/Rewind Time:	120 sec. (max.) in case of C-60 tape

General Section

Power Source:	AC 220V, 50Hz DC 12V
Power Consumption:	AC 21W (220V), DC 10W (12V)
Loud-Speaker:	12 cm round type x 1, 5 cm round type x 1
Audio Output:	3W (max.)
Semiconductors:	36-transistors, 39-diodes, 5-IC's
Cabinet:	Thermoplastic
Dimentions:	452(W) x 134(H) x 282(D) mm
Net Weight:	6.2 kg (13.7 lbs.)

○ F MARK License

■ **Output Levels**

DIN Output:	0.775V (test tape MTT-212, 2.2 K-ohm)
Monitor Output:	70mW (Max.) (at 400Hz, 12 ohm)

■ **Input Levels**

DIN Input:	–60 dBm (0.43 mV) (at 315Hz, 4.3 K-ohm)
Ext. Microphone Input:	–50 dBm (2,45 mV) (at 315Hz, 600 ohm)

SHARP CORPORATION
OSAKA, JAPAN

PRINTED IN JAPAN
4256 T-1941-A